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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/743,894

12/24/2003

Raminda Udaya Madurawe

4143

33380

7590

09/28/2005

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EXAMINER

LE, DON P

ART UNIT

PAPER NUMBER

2819

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/743,894

Applicant(s)

MADURAWA, RAMINDA UDAYA

Examiner

Don P. Le

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/18/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-20 is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-16 are rejected under 35 U.S.C. 102(a) as being anticipated by Pugh et al. (US 6,801,052).

3. With respect to claims 1, 2, 7 and 10, figure 1A of Pugh discloses an apparatus (10, examiner considers item 10 as a larger LUT circuit having other elements in it), comprising:

one or more secondary inputs (other functions);

one or more configurable logic states (output of LUT 20);

two or more LUT values (LUT 20 has multiple values); and

a programmable means (21, 22) to select a LUT value (value at X or Y) from a said secondary input or a said configurable logic state.

4. With respect to claims 3 and 11, the apparatus of Pugh used memory to control programmable means.

5. With respect to claim 4, the apparatus of Pugh received signals as either in true or complimentary logic levels. Inherently, the inputs of LUT have to be true and complimentary logic levels.

6. With respect to claim 6, figure 1A of Pugh discloses the secondary input (other functions) is a logic output.

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7. With respect to claims 8 and 12, figure 1A of Pugh disclose a secondary input is A LUT circuit (input from 11 to 40).

8. With respect to claims 9 and 14, the apparatus of Pugh used a memory element selected from one of fuse links, anti-fuse capacitors, SRAM cells, DRAM cells, metal optional links, EPROM cells, EEPROM cells, flash cells, ferro-electric elements, optical elements, electro-chemical elements and magnetic elements.

9. With respect to claims 15 and 16, the apparatus of Pugh discloses the LUT can be implemented with multiple inputs.

Claim Rejections - 35 USC § 103

10. Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pugh et al. (US 6,801,052) in view of Sugibayashi et al. (US 6,515,551). The apparatus of Pugh does not specifically state the transistors of his device as being thin film transistors. Sugibayashi discloses a programmable logic device using thin film transistors for efficient design and performance. It would have been obvious to one of ordinary skill of art at the time the invention was made to have used thin film transistors in the apparatus of Pugh as taught by Sugibayashi for the purpose of efficient design and performance.

Allowable Subject Matter

11. Claims 17-20 are allowed.

12. The following is an examiner's statement of reasons for allowance:

With respect to claim 17, the prior art does not teach two selectable manufacturing configuration, wherein in a first selectable configuration, a RAM ifs formed, the memory circuit further comprising configurable thin-film memory elements; in a second selectable

configuration, a hard-wire ROM is formed in lieu of said RAM, said ROM duplicating one RAM pattern in the first selectable option.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

13. Applicant's arguments filed 8/18/2005 have been fully considered but they are not persuasive.

Applicant argues that Pugh does not teach the preamble "(i) an internal stage of a programmable look up table (LUT) circuit." This is correct. However, the recitation has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

With respect to claims 1, 2 and 7, applicant argues that Pugh does not teach, "(ii) a programmable means to select a LUT value from said secondary input or said configurable logic state." This assumption is incorrect in that Pugh does have the programmable means selected a values from a secondary input (other functions) or a configuration logic state (output of LUT 20).

With respect to claims 4, 15 and 16, applicant argues that Pugh does not teach, **“(iii) 2m secondary inputs (10, 11); and 2m configuration logic states (inherent in LUT), each said state comprising a logic zero and logic one (inherent given that it is a digital logic circuit); and 2m LUT values (inherent in LUT).** Given that M value is one, than the claim is anticipated.

Applicant argues that Pugh does not teach, **“(iv) a plurality of LUT values, each of the LUT values selected from a secondary input or a configuration logic state.”** It is inherent that a LUT will have a plurality of values given for a set of inputs.

With respect to claim 4, applicant argues that there is **“no memory bit programs said selection between secondary and configurable logic state.”** Pugh is a FPGS, and it is well known in the art that multiplexer are controlled by memory in an FPGA.

With respect to claim 6, the language of claim 6 contains the word “comprising one of ...”. Therefore, only one element is needed for the claim to be anticipated.

14. With respect to claims 5 and 13, In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, there is motivation to combine as shown in the above rejections (see rejections).

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

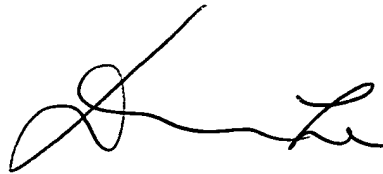
16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Don P. Le whose telephone number is 571-272-1806. The examiner can normally be reached on 7AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Tokar can be reached on 571-272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

9/25/2005

A handwritten signature in black ink, appearing to read 'Don Le', with a stylized, cursive script.

DON LE
PRIMARY EXAMINER